UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/690,694	10/16/2000	YUJI TAKAMIZAWA	P5285A	3266

20178 7590 11/21/2003		EXAMINER
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INTELLECTUAL PROPERTY DEPT		

ART UNIT	PAPER NUMBER
2622	

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DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2000* .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☒ Claim(s) *20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *PTO-1472* .

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in Japan on Friday, October 15, 1999. A claim for priority under 35 U.S.C. 119(a)-(d) cannot be based on said application, since the United States application was filed more than twelve months thereafter.

Specification

The disclosure is objected to because of the following grammatical or typographical errors: on page 1, line 8: "method for such printer" should read "method for such a printer"; on page 7, line 1: "from the interpreting" should read "from interpreting"; on page 9, line 9: "in print buffer" should read "into print buffer"; on page 9, line 30: "to be a real" should read "to be real-time"; on page 15, line 2 "off-line the" should read "off-line, the". Also, indistinct term on page 5, line 7, "component Q" is not adequately defined or referenced.

Appropriate correction is required.

The title of the invention is not descriptive. Claim 19 specifically refers to a host computer, which is neither a printer nor a control method, but a control device. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

Claim 20 is objected to because of the following informalities: on Line 6 the

grammatical error "printed completed" should be replaced by "print completed".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 4 and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the enablement requirement. The claim contains subject matter which was

not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the

invention. In the application, data discarding means is distinguished from clearing

means of claim 1, that clears data that resides in the receive buffer. Data sent by the

host computer is not said to reside in the printer RAM. As a result, there is no means

given to discard data that has never been properly received and stored.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8-14, 16 and 21-23 are rejected under 35 U.S.C. 102(b) as being

anticipated by Akiyama ('653). Akiyama discloses a printer connected to a host

computer, and teaches a receive buffer (Col. 2, Lines 55-56) a data interpreter (Col. 9,

Lines 51-52), a control means (Col. 2, Lines 56-61), a state detection means (Col. 3,

Lines 15-17), and a clearing means (Col. 10, Lines 8-10) that occurs after a non-print

state (Col. 9, Lines 8-10). Where the off-line state is one that represents the first state

where data can still be interpreted but is not printed (Abstract, Lines 2-3). Thus

Akiyama satisfies all the elements present in claim 1 of the pending application.

Akiyama also teaches a setting means (Col. 15, Lines 45-46) when in a first state

(Col. 15, Line 36) and a reading means (Col. 15, Lines 46-47) and that the clearing

means clears the buffer when this allows (Col. 15, Lines 46-49). Also Akiyama teaches

that this can be the result of a control command from the host computer (Col. 4, Lines

37-39). Thus Akiyama satisfies all the elements present in claims 2 and 3 of the

pending application.

Akiyama adds that there is a means after the printing apparatus is off-line (Col. 4,

Lines 21-23) by which data from the host is discarded (Col. 4, Lines 37-39), as required

in claim 4. In addition, it is specified that this occurs only by a designation of a handling

mode (that may choose from at least two different states) (Col. 4, Lines 37-39), as

required in claim 5. Akiyama also makes reference to a print buffer, that is

distinguished from a receive buffer and that this is cleared by a clearing means (Col. 10,

Lines 7-9), as required in claim 6.

Akiyama discloses a printing apparatus with a controller (in this case being a host

computer). It includes the ability to detect whether the printer is on-line or off-line (Col.

10, Lines 59-61) corresponding to a first and second state, respectively. Where the off-

line state is one that represents the first state where data can still be interpreted

(Abstract, Lines 2-3). When the computer is notified that the printer apparatus is off-line

(Col. 9, Lines 57-60), that while in this state the receive buffer is cleared (Col. 10, Lines

7-9). Thus being the whole matter of claim 8.

It is also disclosed that the second condition follows the first, which is the matter

circumscribed by claim 9. That in the off-line mode (Col. 4, Lines 20-22), the host

computer also determines the data-handling mode and that this mode can be set to

clear the buffer (Col. 4, Lines 37-39), thus anticipating all elements from claim 10.

It is also disclosed that according to the control commands from the host

computer (Col. 13, Lines 9-11), clearing can be performed (Col. 13, Lines 32-34) which

is the statement of claim 11, and further that this occurs only through a data-handling

command (Col. 13, Lines 9-11), which is the statement of claim 13.

It is also disclosed that all previously received data is deleted, after the off-line

state, and before resume printing (on-line state) (Col. 10, Lines 5-6), which is the

statement of claim 12. Also, that after clearing the receive buffer, receive data is then

temporarily held in the receive buffer (Col. 14. Lines 3-8) until the interrupt process is

ended (Col. 14, Lines 23-25), which returns to the on-line mode (second state), which is

the statement of claim 14. Also incorporated is that clearing occurs for both a receive

and a print buffer are cleared in the first state (Col. 15, Lines 48-49) as in claim 16.

Akiyama teaches a receive buffer (Col. 2, Lines 55-56), a data interpreter (Col. 9,

Lines 51-52), a control means (Col. 2, Lines 56-61), a state detection means (Col. 3,

Lines 15-17), and a clearing means (Col. 10, Lines 8-10) that occurs after a non-print

state (Col. 9, Lines 8-10). Where the off-line state is one that represents the first state

where data can still be interpreted but is not printed (Abstract, Lines 2-3). Thus

Akiyama satisfies all the elements present in claim 21 of the pending application.

Akiyama also teaches a setting means (Col. 15, Lines 45-46) when in a first state

(Col. 15, Line 36) and a reading means (Col. 15, Lines 46-47) and that the clearing

means clears the buffer when this allows (Col. 15, Lines 46-49). Thus Akiyama satisfies

all the elements present in claim 22 of the pending application.

Akiyama adds that there is a means after the printing apparatus is off-line (Col. 4,

Lines 21-23) by which data from the host is discarded (Col. 4, Lines 37-39), as required

in claim 23.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama

in view of Teradaira ('081). The disclosure of Akiyama in reference to the independent

claim 1 is discussed above.

Akiyama fails to disclose that the first state is an off-line mode where data

interpretation does not occur and that the second state is an on-line mode where data

interpretation does occur.

Teradaira adds that in the off-line state that data interpretation does not occur (Col. 7, Lines 8-10) and by implication that in the on-line mode data interpretation does occur.

The subject of the Teradaira reference is a method of controlling a printing apparatus. The similarity of this to that of the Akiyama reference in structure and function suggests that the use of having the first state be an off-line mode where data interpretation does not occur and the second state be an on-line mode where data interpretation does occur would have been obvious to those of ordinary skill in this art before the time of invention by the applicant, and is evident in the combined teachings of Akiyama and Teradaira.

Claims 15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama in view of Fukano. The disclosure of Akiyama in reference to the independent claim 8 is discussed above.

Akiyama fails to disclose as clearly as Fukano, that the buffer is cleared when the second state is detected, only after the first state is detected, which is the matter of claim 15 of the pending application, and that a print buffer is also cleared, as in claim 17. Also, Akiyama is not as clear in indicating that the first and second states are off-line and on-line modes as required in claim 18.

Fukano adds that the buffer is cleared when there is an on-line (resume) mode, following an off-line mode (Col. 3, Lines 57-59), also that this applies to a print buffer as

well as a receive buffer (Col. 8, Lines 15-16), and that the first state is off-line and the

second state is "resume operation" or on-line (Col. 2, Lines 24-28).

The subject of the Fukano reference is a method of controlling a printing

apparatus. The similarity of this to that of the Akiyama reference in structure and

function suggests that using a clear mode in an on-line state after an off-line state and

incorporating the use of a print buffer would have been obvious to those of ordinary skill

in this art before the time of invention by the applicant, and is evident in the combined

teachings of Akiyama and Fukano.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Manglapus

('151) in view of Akiyama, and further in view of Fukano.

Manglapus discloses a host device that sends the print data along with control

signals (Col. 5, Lines 37-39) and along with these control signals could be a request for

when the job is completed (Col. 6, Lines 48-49). It is also implied here that the host is

capable of detecting this notification.

Manglapus fails to disclose that the host is able to detect that the printer is on-

line or off-line, and that the print data will be re-sent after on-line notification.

Akiyama adds that the host can detect when the printer is in an on-line or off-line

state (Col. 10, Lines 59-61).

Fukano further adds that the print data is re-sent from a host computer after the

resume operation (on-line) follows an off-line state (Col. 4, Lines 56-59).

The subject of the Manglapus reference is at least one workstation connected to a printer. The similarity of this to that of the Akiyama and Fukano references in structure and function suggest that detecting an on-line state and off-line state, and re-sending print data after an on-line state would have been obvious to those of ordinary skill in this art before the time of invention by the applicant, and is evident in the combined teachings of Manglapus and Akiyama with Fukano.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama in view of Manglapus, and further in view of Fukano. The disclosure of Akiyama in reference to the independent claim 8 is discussed above.

Akiyama fails to disclose that the host will send a print-complete request along with the print data and then await this notification, nor does it include that the print data will be re-sent after on-line notification after an off-line notification but before receiving the print-complete notification.

Manglapus discloses a host device that sends the print data along with control signals (Col. 5, Lines 37-39) and along with these control signals could be a request for when the job is completed (Col. 6, Lines 48-49). It is also implied here that the host is capable of detecting this notification.

Fukano further adds that the print data is re-sent from a host computer after the resume operation (on-line) follows an off-line state (Col. 4, Lines 56-59).

The subject of the Akiyama reference is a host computer and thereby a means of controlling it. The similarity of this to that of the Manglapus and Fukano references in

structure and function suggest that sending print data with a print-complete request,

awaiting this signal and re-sending print data after an on-line after an off-line state but

before the print-complete signal is received would have been obvious to those of

ordinary skill in this art before the time of invention by the applicant, and is evident in the

combined teachings of Akiyama and Manglapus with Fukano.

Additional Notes

Prior art references Makino ('405), Nishiyama ('514), Miyasaka ('896, '135, '906, '363,

'985, '073), Fukano ('453), Beilinski ('089), Ochiai ('886), Morein ('764), Tan ('560),

Thomas ('009), Yoneda ('765), Teradaira ('910, '884), and Ermolovich ('236, '323) are

only included as background sources and were not used in the determination of the

validity of the claims contained in the pending application of this office action.

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Timothy J. Stephany whose telephone number is 703-

305-8951. The examiner can normally be reached on 8:30 am - 4:30 pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Edward Coles can be reached on 703-305-4712. The fax phone number for

the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-305-

9700.

EDWARD COLES

SUPERVISORY PATENT EXAMINER

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